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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/800,394	03/12/2004	Joel M. Krause	RIC03002	7180

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WORLDCOM, Inc.  
Technology Law Department  
1133 19th ST, NW  
WASHINGTON, DC 20036

EXAMINER
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LY, ANH VU H

ART UNIT	PAPER NUMBER
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2667

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/800,394	<b>Applicant(s)</b> KRAUSE ET AL.	
	<b>Examiner</b> Anh-Vu H Ly	<b>Art Unit</b> 2667	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 1-60 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-19, 24, 29 and 32-60 is/are rejected.
- 7) ☒ Claim(s) 20-23, 25-28, 30 and 31 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>06/24/04</u> . | 6) <input type="checkbox"/> Other: ____.  |

## DETAILED ACTION

### *Claim Objections*

1. Claims 8-9 and 14-15 are objected to because of the following informalities: in line 1, “wherein the network interface” lacks antecedent basis. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 6-7, 12-13, 18-19, 24, 29, and 34 are rejected under 35 U.S.C. 102(e) as being anticipated by Wengrovitz et al (US Pub 2004/0205209 A1). Hereinafter, referred to as Wengrovitz.

With respect to claims 1, 7, and 13, Wengrovitz discloses in Fig. 1, a block diagram of a data communication system including a SIP-PBX proxy server (a network interface) for converting messages that adheres to a private, vendor-specific protocol, to messages that adhere to the SIP protocol. Wengrovitz discloses on page 5, 77<sup>th</sup> – 80<sup>th</sup> paragraphs and Figs. 8-9, a signaling diagram for handling an incoming call from the PSTN (a calling party) to a SIP set (called party device) located at IP address D (a network interface configured to receive a call from a calling party device to a called party device). Herein, the IP-PBX issues a PDSV ring command to ipa1, which is then converted to a SIP INVITE message and set to SIP set D (signaling conversion logic configured to convert between SIP signaling and circuit-switched

telephony signaling to support the call). As illustrated in Fig. 9, the SIP-PBX proxy server 18 has made a logical internal connection, or mapping, between ipa1:pas1 and IPB:PBS1 for signaling ports and between ipa1:pam1 and IPB:PBM1 for the media ports. Herein, the address information of the calling party has not changed only the address information of the called party has been internally mapped (wherein addressing information of the calling party is preserved in the conversion). Wengrovitz discloses in Fig. 1, the data communication system includes a voice switch (IP-PBX switch) in communication with various telephony devices, such as, for example, digital sets 12, IP sets 14, and SIP sets 16 (the called party device includes one of a telephone station and a SIP client). Wengrovitz discloses in Fig. 3, a block diagram of SIP-PBX proxy server comprises network interfaces 36 and 38 or ports coupling to the converter 26 for receiving and transmitting signaling and data messages from/to various telephony devices (a voice port coupled to the signaling conversion logic and configured to communicate selectively with the telephone station and a data port configured to communicate selectively with the SIP client).

With respect to claims 6, 12, and 18, Wengrovitz discloses in Fig. 1, the data communication system includes a voice switch (IP-PBX switch) in communication with various telephony devices, such as, for example, digital sets 12, IP sets 14, and SIP sets 16. Herein, each of the telephony devices has one or more ports for receiving signaling/data from the IP-PBX switch (another voice port communication with a telephone switch configured to terminal the call to the called party station).

With respect to claims 19 and 24, Wengrovitz discloses on page 5, 77<sup>th</sup> – 80<sup>th</sup> paragraphs and Figs. 8-9, a signaling diagram for handling an incoming call from the PSTN to a SIP set located at IP address D. In step 100, the IP-PBX 10 issues a PDSV ring command to ipa1 (receiving a telephony signaling pertaining to a call from a calling party according to a first signaling protocol compatible with a circuit switched network), which is then converted to a SIP INVITE message and sent to SIP set D 16a in step 102 (generating a call setup message according to a second signaling protocol compatible with a data network). In step 105, the IP-PBX 10 instructs (determining and inserting a header) ipa1 where it should send its media (IPC:PCM1), and where it should receive its media (pam1). Herein, IPC:PCM1 corresponds to the address information of the calling party (determining whether the telephony signaling comprises address information pertaining to the calling party). And furthermore, IPC:PCM1 is also the network address for receiving data from the sending SIP client (inserting a header into the call setup message, the header containing a network address corresponding to the address information).

With respect to claim 29, Wengrovitz discloses on pages 5-6, 81<sup>st</sup> – 84<sup>th</sup> paragraphs, a signaling diagram for handling an outgoing call to the PSTN (a telephony system that uses a telephony signaling protocol that is not compliant with SIP) from SIP set E. Herein, a dialed-number of a callee is included in a “To:” header of a SIP INVITE message (responsive to whether the first signaling message includes a remote party identification header). And wherein, the SIP-PBX proxy server 18 receives the SIP INVITE message via the second network interface 38 (receiving a first signaling message compliant with a SIP and indicative of a call to a

Art Unit: 2667

telephony system that uses a telephony signaling protocol that is not compliant with SIP), converts the SIP INVITE message to an appropriate PDSV-over-IP message (creating a second signaling message according to the telephony signaling protocol), and transmits the PDSV-over-IP message to the IP-PBX with source address ipa2 (providing a calling party number element in the second signaling message, wherein the content of the calling party number element is derived from the content of the remote party identification header).

With respect to claim 34, Wengrovitz discloses on page 3, 47<sup>th</sup> paragraph, that the IP-PBX is coupled to the IP sets 14 and SIP sets 16 over a data communication network 22 (wherein a SIP network server acts upon the first signaling message to communicate over a trunk group with a SIP client), such as, for example, a local area network (LAN).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 2-5, 8-11, 14-17, 32-33, and 35-60 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wengrovitz et al (US Pub 2004/0205209 A1).

With respect to claims 2, 8, and 14, Wengrovitz discloses in Fig. 1, a data communication system including a SIP-PBX proxy server (a network interface) for converting messages that adheres to a private, vendor-specific protocol, to messages that adhere to the SIP protocol.

Wengrovitz does not disclose that the firewall logic configured to filter the data stream. However, firewall is well known in the art for filtering and preventing unauthorized data stream. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include firewall in Wengrovitz's system, to filter unauthorized data and increase quality of the network.

With respect to claims 3, 9, and 15, Wengrovitz discloses on page 3, 47<sup>th</sup> paragraph, that the IP-PBX is coupled to the IP sets 14 and SIP sets 16 over a data communication network 22 (wherein the network interface communicates with one of DSL network and a frame relay network), such as, for example, a local area network (LAN).

With respect to claims 4, 10, and 16, Wengrovitz discloses in Fig. 1, a data communication system including a SIP-PBX proxy server (a network interface) for converting messages that adheres to a private, vendor-specific protocol, to messages that adhere to the SIP protocol. Wengrovitz does not disclose that QoS logic configured to classify the packets according to a predetermined QoS policy. However, classifier is well known in the art for classifying the received traffic according to certain policies. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include traffic classifier in Wengrovitz's system, to reduce delays and increase network efficiency.

With respect to claims 5, 11, 17, and 46-51, Wengrovitz discloses in Fig. 1, a data communication system including a SIP-PBX proxy server (a network interface) for converting

messages that adheres to a private, vendor-specific protocol, to messages that adhere to the SIP protocol. Wengrovitz does not disclose that network management logic configured to detect and report fault within the apparatus, to monitor configuration information of the apparatus, to measure a network utilization parameter for billing and accounting, and to determine performance statistics. However, network management includes tasks such as detecting, reporting, monitoring, measuring, and determining network performance in a digital communication system is well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include network management functions in Wengrovitz's system, to control the system effectively.

With respect to claims 32 and 33, Wengrovitz discloses in Fig. 1, a data communication system including a SIP-PBX proxy server for converting messages that adheres to a private, vendor-specific protocol, to messages that adhere to the SIP protocol. Wengrovitz does not disclose the steps of from the remote party identification header, identifying a trunk group in the telephony system to which the call is addressed; determining a country code configured to be associated with the trunk group; proving the country code in the content of the calling party number; determining a country designation in an address specification of the remote party identification header of the first signaling message; comparing the country code to the country designation; and selectively providing the country code responsive to whether the country code corresponds to the country designation. However, steps recited above are well known in the art. It would have been obvious to one having ordinary skill in the art at the time the invention was



Art Unit: 2667

made to include recited techniques in Wengrovitz' system, to enable an efficient shared bandwidth utilization.

With respect to claim 35, Wengrovitz discloses on page 3, 47<sup>th</sup> paragraph, that the IP-PBX is coupled to the IP sets 14 and SIP sets 16 over a data communication network 22, such as, for example, a local area network (LAN). Wengrovitz does not disclose wherein privacy restrictions are conveyed from the trunk group to SIP client. However, privacy restrictions are well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include the feature of conveying privacy restrictions in Wengrovitz's system, to increase quality of service.

With respect to claims 36, 43, 52, and 58, Wengrovitz discloses in Fig. 1, the data communication system includes a voice switch (IP-PBX switch) in communication with various analog devices (left side of the switch, PSTN devices, not shown), SIP devices (right side of the switch), and PSTN/LAN networks (one or more voice ports configured to communicate with one or more analog devices; one or more data ports configured to communicate with one or more SIP devices; and one or more network ports configured to communicate with a network), such as, for example, digital sets 12, IP sets 14, and SIP sets 16. Wengrovitz does not disclose firewall logic configured to filter traffic received from one or more network ports and QoS logic configured to perform QoS processing on traffic received from one or more voice ports, one or more data ports, and one or more network ports. However, firewall and QoS logics are well known in the art as part of network management. Therefore, it would have been obvious to one having

ordinary skill in the art at the time the invention was made to include firewall and QoS logic in Wengrovitz's system, to filter unauthorized data, reduce delays, increase quality and increase network efficiency.

With respect to claims 37 and 59, Wengrovitz discloses in Fig. 9, that the SIP-PBX proxy server 18 has made a logical internal connection, or mapping, between ipa1:pas1 and IPB:PBS1 for signaling ports and between ipa1:pam1 and IPB:PBM1 for the media ports (a network address translator and a port address translator for translating network address and port information to communicate over the network).

With respect to claims 38 and 53-54, Wengrovitz discloses in Fig. 3, a plurality of network interfaces for communicating signaling and data (at least one FXS/FXO voice port, and at least one of a T1 and fractional T1 trunk group).

With respect to claims 39 and 55 Wengrovitz discloses in Fig. 3, a converter 26 for converting between the SIP and TDM (SIP/TDM conversion logic connected to at least one FXS/FXO voice port and at least one of T1 and fractional T1 trunk group and configured to translate signals between SIP and TDM signaling protocol).

With respect to claims 40-41 and 56, Wengrovitz discloses in Fig. 1, the data communication system includes a voice switch (IP-PBX switch) in communication with various analog devices (left side of the switch, PSTN devices, not shown) (wherein analog devices

Art Unit: 2667

include at least one of analog telephone and a private branch exchange), SIP devices (right side of the switch), and PSTN/LAN networks (wherein one or more data ports include at least one Ethernet port).

With respect to claims 42 and 57, Wengrovitz discloses on page 3, 47<sup>th</sup> paragraph, that the IP-PBX is coupled to the IP sets 14 and SIP sets 16 over a data communication network 22 (wherein one or more network ports include at least one DSL port and at least one frame relay port), such as, for example, a local area network (LAN).

With respect to claims 44 and 45, Wengrovitz discloses in Fig. 1, a data communication system including a SIP-PBX proxy server (a network interface) for converting messages that adheres to a private, vendor-specific protocol, to messages that adhere to the SIP protocol. Wengrovitz does not disclose that QoS processing includes classifying traffic received, scheduling traffic received based on classifying, a clock configured to generate a reference clock signal, an echo canceller configured to provide echo control and cancellation. However, classifying, scheduling, clocking, and echo canceling are well known in the art. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to include classifier, scheduler, clock, and echo canceller in Wengrovitz's system, to manage bandwidth effectively and increase quality of service.

With respect to claim 60, Wengrovitz discloses in Fig. 1, the SIP-PBX proxy server located in a LAN (network device resides at a customer premises).

***Allowable Subject Matter***

4. Claims 20-23, 25-28, and 30-31 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Conclusion***

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Ejzak et al (US Pub 2004/0095923 A1) discloses network controller replacement of indication of one or more specific network connections usable by first network component in signaling message for second network component with wild card network connection information.

Sylvain (US Pub 2004/0120498 A1) discloses inter-working of multimedia and telephony equipment.

Krause et al (US Pub 2004/0181686 A1) discloses integrated customer premises equipment device.


6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anh-Vu H Ly whose telephone number is 571-272-3175. The examiner can normally be reached on Monday-Friday 7:00am - 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi Pham can be reached on 571-272-3179. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2667

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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